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EXAMINER

FRITZ, BRADFORD F

ART UNIT

PAPER NUMBER

2141

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/645,087

Applicant(s)

WARWICK ET AL.

Examiner

BRADFORD F. FRITZ

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 and 35-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 and 35-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 5/02/2008, with respect to the rejection(s) of claim(s) 1-33 and 35-37 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Lamb (6,892,264) in view of Iwami (2002/0156867) and Kuik (7,165,258).

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claims 15-28 recite "computer program product", there is lack of antecedent basis for this limitation.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 15-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The Examiner notes that any claim not specifically mentioned and rejected under 35 U.S.C., is rejected because it depends from a rejected claim that is specifically mentioned.

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5. Claim 15 is directed to non-statutory subject matter because it appears that in at least one embodiment the claimed invention could just be the entire computer program of executable instructions (i.e. software per se), and not executable instructions stored on a computer readable medium thus rendering the claim non-statutory.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-8, 10-22, 24-33 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamb (6,892,264) in view of Iwami (2002/0156867).

8. Regarding claims 1 and 15, Lamb disclosed an act of identifying a set of the one or more devices that can be accessed locally or over a network (column 3, lines 16-30 and column 63, lines 60-67, Fig. 1); an act of generating a target that identifies a set of the one or more devices (column 3, lines 16-30 and column 63, lines 60-67), and that includes at least one corresponding device identifier (column 3, lines 16-30 and column 63, lines 60-67); an act of associating client authorization information identified by the network provider with the target that identifies set of the one or more devices (column 3, lines 42-50 and column 63, lines 60-67); and an act of assigning the target to a port

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through a protocol-independent port driver at the network provider (column 63, lines 60-67 and column 59, lines 1-12).

However, Lamb does not explicitly teach wherein the set of one or more devices is identified based on each of the devices having at least one common group of clients; wherein only clients having client authorization information associated with the target can access the devices identified by the target. Iwami teaches wherein the set of one or more devices is identified based on each of the devices having at least one common group of clients (paragraphs 0030-0031, 0038-0039, 0041 and Fig. 3); wherein only clients having client authorization information associated with the target can access the devices identified by the target (paragraphs 0030-0031, 0038-0039, 0041 and Fig. 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the features as taught by Iwami in the system of Lamb because both are from the same field of endeavor and in order to allow a storage server provider to provide restricted access to storage resources to only authorized users or group of users (paragraph 0015, e.g. users from the same company).

9. Regarding claims 2 and 16, Lamb disclosed wherein the at least one of the one or more devices can be accessed locally through a local access protocol (column 19, lines 20-27).

10. Regarding claims 3 and 17, Lamb disclosed wherein the at least one of the one or more devices is a network device that can be accessed on a network through a network access protocol (column 19, lines 20-27).

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11. Regarding claims 4 and 18, Lamb disclosed wherein the act of identifying one or more devices further includes an act of creating one or more devices that can be accessed over the network (column 19, lines 20-27 and Fig. 1).

12. Regarding claims 5 and 19, Lamb disclosed wherein the act of creating one or more devices includes an act of identifying a at least one of a partition and file (column 63, lines 5-25 and column 74, lines 1-14), wherein the at least one of a partition and file represents at least a portion of one of the one or more devices (column 63, lines 5-25 and column 74, lines 1-14), and wherein the at least one of a partition and file can be configured by the network provider to provide the client modifiable access to the portion of the one of the one or more devices (column 63, lines 5-25 and column 74, lines 1-14).

13. Regarding claims 6 and 20, Lamb disclosed an act of providing client access to one or more of a port (column 63, lines 60-67 and column 59, lines 1-12), a WWN (column 31, lines 55-65), and a portal through the protocol-independent port driver (column 59, lines 5-15), such that the protocol-independent port driver is accessed through one or more protocol-dependent mini-ports (column 63, lines 60-67 and column 59, lines 5-15).

14. Regarding claims 7 and 21, Lamb disclosed wherein the protocol-independent port driver and one or more protocol-dependent mini-port drivers are managed by the centralized service (column 63, lines 60-67 and column 59, lines 5-15), and wherein the one or more protocol-dependent miniport drivers plug-in to the protocol-independent port driver (column 63, lines 60-67 and column 59, lines 5-15).

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15. Regarding claims 10 and 24, Lamb disclosed wherein the virtual SCSI device is a storage device (column 45, lines 4-20), and the network comprises a storage area network (column 45, lines 4-20).

16. Regarding claims 11 and 25, Lamb disclosed wherein the storage device is one or more of an internal or external magnetic storage medium, an optical storage medium, and a tape backup drive (column 63, lines 60-67 and column 59, lines 1-12).

17. Regarding claims 12 and 26, Lamb disclosed wherein the network provider manages one or more targets, one or more drivers, and authentication information for one or more clients through a centralized directory service (column 63, lines 60-67 and column 59, lines 1-12).

18. Regarding claims 13 and 27, Lamb disclosed wherein the network device identifier is identified by a target name and a LUN that has been assigned to the at least one device by the centralized directory service (column 63, lines 60-67 and column 59, lines 1-12).

19. Regarding claims 14 and 28, Lamb disclosed wherein the logical unit number refers to one or more of a device, a plug-and-play identifier for a device (abstract), a global unique identifier for a device; a device driver that interfaces with a device (column 63, lines 60-67 and column 59, lines 5-15); and at least one of a partition and file that represents a portion of a device (column 63, lines 5-25 and column 74, lines 1-14).

20. Regarding claim 29, Lamb disclosed an act of identifying a set of the one or more devices that can be accessed locally or over a network (column 3, lines 16-30 and column 63, lines 60-67, Fig. 1); an act of generating a target that identifies a set of the

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one or more devices (column 3, lines 16-30 and column 63, lines 60-67), and that includes at least one corresponding device identifier (column 3, lines 16-30 and column 63, lines 60-67); an act of associating client authorization information identified by the network provider with the target that identifies the of the one or more devices (column 3, lines 42-50 and column 63, lines 60-67); and a step for exposing the set of one or more devices to the client through a specific one of a network port (column 63, lines 60-67 and column 59, lines 1-12), a WWN (column 31, lines 55-65), and a portal, such that the client can access the set of one or more device identified by the target when the client has access to the specific one of a network port (column 63, lines 60-67 and column 59, lines 1-12), a WWN (column 31, lines 55-65), and portal, and when the client presents the associated client authorization to the network provider (column 3, lines 42-50 and column 63, lines 60-67).

However, Lamb does not explicitly teach wherein the set of one or more devices is identified based on each of the devices having at least one common group of clients; wherein only clients having client authorization information associated with the target can access the devices identified by the target. Iwami teaches wherein the set of one or more devices is identified based on each of the devices having at least one common group of clients (paragraphs 0038-0039, 0041 and Fig. 3); wherein only clients having client authorization information associated with the target can access the devices identified by the target (paragraphs 0038-0039, 0041 and Fig. 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the features as taught by Iwami in the system of Lamb because both are from the same

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field of endeavor and in order to allow a storage server provider to provide restricted access to storage resources to only authorized users or group of users (paragraph 0015, e.g. users from the same company).

21. Regarding claim 30, Lamb disclosed an act of assigning the target to a port through a protocol-independent port driver at the network provider (column 63, lines 60-67 and column 59, lines 5-15); and an act of providing client access to the specific one of a port, a WWN, and a portal through the protocol independent port driver (column 63, lines 60-67 and column 59, lines 5-15), such that the protocol-independent port driver is accessed through one or more protocol-dependent mini-ports (column 63, lines 60-67 and column 59, lines 5-15).

22. Regarding claim 31, Lamb disclosed wherein the client is provided access to the specific one of a port, a WWN (column 63, lines 60-67 and column 59, lines 5-15), and a portal by virtue of being authenticated at one or more of a local centralized service provider, and a remote authentication database (column 63, lines 60-67 and column 59, lines 5-15).

23. Regarding claim 32, Lamb disclosed an act of identifying a plurality of identifiers corresponding the plurality of storage devices on a storage service provider (column 3, lines 16-30 and column 63, lines 60-67, Fig. 1), wherein at least one of the plurality of storage devices are represented by at least one of a partition or a file (column 63, lines 5-25 and column 74, lines 1-14), wherein the partition and file each allow indirect access to the at least one storage device (column 63, lines 5-25 and column 74, lines 1-14); an act of receiving from a centralized directory service a modifiable client resource

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that identifies client authorization to access the storage device (column 3, lines 42-50 and column 63, lines 60-67), and a portion of the storage device that the client can access (column 3, lines 42-50 and column 63, lines 60-67); an act of creating a target containing one or more logical unit numbers that have been assigned to the identified device identifiers (column 63, lines 60-67 and column 59, lines 1-12), wherein access to the target is provided according to the modifiable client resource (column 3, lines 42-50 and column 63, lines 60-67); and an act of providing the client computer access to the plurality of storage devices through a client-restricted port on the storage service provider (column 3, lines 42-50 and column 63, lines 60-67), such that if the client has access to the client-restricted port (column 3, lines 42-50 and column 63, lines 60-67), the client can access the storage device by providing the storage service provider with client authorization (column 3, lines 42-50 and column 63, lines 60-67), an act of receiving, at the storage service provider, a client computer request to access at least the at least one of the plurality of storage devices, wherein the client computer request is received through a protocol dependent mini-port (column 63, lines 60-67 and column 59, lines 5-15).

However, Lamb does not explicitly teach wherein an act of providing the client computer access to the plurality of storage devices represented by the plurality of logical unit numbers contained in the target, and wherein the client can access only those storage devices represented by a logical unit number contained in the target using storage service provider, and an act of receiving client authorization; and upon recognizing that the client authorization corresponds with the requested at least the at

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least one of the plurality of storage devices, and that the client is authorized to access the target, providing the client computer with access to at least the at least one of the plurality of storage devices in the target. Iwami teaches wherein an act of providing the client computer access to the plurality of storage devices represented by the plurality of logical unit numbers contained in the target (paragraphs 0030-0031, 0038-0039, 0041 and Fig. 3), and wherein the client can access only those storage devices represented by a logical unit number contained in the target using storage service provider (paragraphs 0030-0031, 0038-0039, 0041 and Fig. 3), and an act of receiving client authorization (paragraphs 0030-0031, 0038-0039, 0041 and Fig. 3); and upon recognizing that the client authorization corresponds with the requested at least the at least one of the plurality of storage devices (paragraphs 0030-0031, 0038-0039, 0041 and Fig. 3), and that the client is authorized to access the target, providing the client computer with access to at least the at least one of the plurality of storage devices in the target (paragraphs 0030-0031, 0038-0039, 0041 and Fig. 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the features as taught by Iwami in the system of Lamb because both are from the same field of endeavor and in order to allow a storage server provider to provide restricted access to storage resources to only authorized users or group of users (paragraph 0015, e.g. users from the same company).

24. Regarding claim 33, Lamb disclosed wherein centralized directory service receives client access information from at least one of a local and remote database (column 37, lines 2-15).

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25. Regarding claim 35, Lamb disclosed wherein the client-restricted port is managed by the centralized service and a protocol-independent port driver that receives network traffic through one or more protocol-dependent mini-port drivers (column 63, lines 60-67 and column 59, lines 5-15).

26. Regarding claim 36, Lamb disclosed wherein the one or more protocol-dependent mini-port drivers are plug-ins to the protocol-independent port driver (column 63, lines 60-67 and column 59, lines 5-15).

27. Regarding claim 37, Lamb disclosed wherein at least one of the one or more mini-port drivers communicates through one or more of an Ethernet, Token Ring, USB, fiber channel, or wireless connection protocol (column 2, lines 50-60 and column 22, lines 30-46).

28. Claims 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamb (6,892,264) in view of Iwami, further in view of Kuik (7,165,258).

29. Regarding claims 9 and 23, Lamb disclosed wherein the at least one device is a virtual SCSI device (column 63, lines 60-67 and column 59, lines 5-15). However Lamb does not explicitly teach that the device can be accessed through an iSCSI protocol. Kuik teaches using the iSCSI protocol to access a device (column 5, lines 10-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the use of the iSCSI protocol as taught by Kuik in the system of Lamb in view of Iwami because all are from the same field of endeavor of storage area networks and in order to map the SCSI model over the TCP model (column 5, lines 20-25).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRADFORD F. FRITZ whose telephone number is (571)272-3860. The examiner can normally be reached on 8:00 - 4:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. F. F./
Examiner, Art Unit 2141

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2141